

What is claimed is:

1 *Sub A1* 1. A voice-operated arrangement for interacting with a dual-tone multifrequency (DTMF)-controlled system, the arrangement comprising
2 a speech recognition unit responsive to voice commands from a user and
3 generating a digital signal representative of a particular received voice command;
4 a speech-to-DTMF tones application, responsive to the digital signal outputs from
5 the speech recognition unit for accessing a proper user record from a plurality of user
6 records, retrieving dial-out information for the accessed user's DTMF-controlled system
7 and completing a communication path between the user and said DTMF-controlled
8 system, wherein said voice-operated arrangement monitors the communication path and
9 retrieves predetermined voice commands uttered by the user and translates said
10 predetermined voice prompts into DTMF tones which are thereafter transmitted to said
11 DTMF-controlled system.

1 *Sub A2* 2. The arrangement as defined in claim 1 wherein each user record includes a
2 spoken voice identification field.

1 3. The arrangement as defined in claim 2 wherein each user record further
2 includes a spoken voice password field.

1 *Sub A2* 4. The arrangement as defined in claim 1 wherein each user record comprises a
2 plurality of different fields for each DTMF-controlled system associated with that user.

1 5. The arrangement as defined in claim 4 wherein the plurality of different fields
2 for a DTMF-controlled system in a user record comprises a dial-out access number for
3 the DTMF-controlled system and a mapping of a plurality of voice commands to an
4 associated plurality of DTMF tone sequences.

1 6. The arrangement as defined in claim 5 wherein the plurality of different fields
2 further comprises a series of DTMF tones for accessing the proper DTMF-controlled
3 system within the user's plurality of such systems.

1 7. The arrangement as defined in claim 1 wherein at least one DMTF-controlled
2 system is a voice messaging system.

1 8. A method for interacting with at least one DTMF-controlled
2 telecommunications system, the method comprising the steps of:
3 a) accessing, by a user, a speech-to-DTMF tone application;
4 b) retrieving a proper user record for the user identified in step a);
5 c) dialing out, by the application, to a DTMF-controlled system included in the
6 user record retrieved in step b);
7 d) bridging together the call between the user and the application and the call
8 between the application and the DTMF-controlled system;
9 e) in response to predefined voice commands uttered by the user and received by
10 the speech-to-DTMF tone application, translating said voice commands into one or more
11 DTMF tones accepted as commands by the DTMF-controlled system; and
12 f) transmitting said translated DTMF tone commands from the speech-to-DTMF
13 tone application to the DTMF-controlled system.

1 9. The method as defined in claim 8 wherein in performing step a), the method
2 comprises the additional step of authorizing a user by requesting and validating a spoken
3 user password.

1 10. The method as defined in claim 8 wherein the method is used for retrieving
2 messages from a plurality of different messaging systems associated with a single user,
3 the method comprising the further steps of
4 g) querying the user record for additional DTMF-controlled system fields; and
5 h) repeating steps c) – f) for each additional DTMF-controlled system.